

We claim:

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1. An electronic device for displaying a buffered image, comprising:
an image capture device having a range of exposure times for converting light to an electrical signal;

5 a programmable amplifier coupled to said image capture device for automatically adjusting the strength of said electrical signal when a determination is made that the buffered image is sufficiently obfuscated to lack discernible features.

10 2. An electronic device for displaying a buffered image according to claim 1, wherein said programmable amplifier further automatically adjusting the strength of said electrical signal when a further determination is made that the buffered image is smeared.

15 3. An electronic device for displaying a buffered image, according to claim 1, further comprising:

20 multiplying means responsive to said programmable amplifier for further increasing the strength of said electrical signal to cause the display of an image of sufficient detail to facilitate live view observation.

25 4. An electronic device for displaying a buffered image, according to claim 3, wherein said multiplying means includes:

an analog to digital converter for converting said electrical signal into a digital signal; and

digital multiplier means for increasing the strength of said digital signal.

5. An electronic device for displaying a buffered image according to claim 4, wherein said digital multiplier means is a digital multiplier.

6. An electronic device for displaying a buffered image according to claim 4, wherein said digital multiplier means is a microprocessor.

7. A method for displaying a buffered image, comprising:
converting light to an electrical signal;
5 responding to an automatic indication that the image is sufficiently obfuscated to lack discernible features; and
adjusting the strength of said electrical signal to cause the display of an image sufficient to be non obfuscated.

10 8. A method for displaying a buffered image according to claim 7, wherein said step of adjusting the strength of said image signal includes;
increasing the strength in incremental step values.

15 9. A method for displaying a buffered image according to claim 8, wherein said step of increasing the strength in incremental step values stops, when the strength of said image signal reaches a maximum strength level.

20 10. A method for displaying a buffered image according to claim 9, wherein said maximum strength level is a G_{\max} level.

11. A method for displaying a buffered image according to claim 7, wherein said step of adjusting the strength of said image signal includes;
decreasing the strength in incremental step values to a minimum strength level.

25 12. A method for displaying a buffered image according to claim 11, wherein said minimum strength level is a G_{\min} level.

13. A method for display a buffered image according to claim 7, wherein the buffered image is repeatedly refreshed at a given frame rate independently of LCD brightness and contrast controls.

5 14. An electronic device for displaying a buffered image, according to claim 1, wherein said determination is made by a microprocessor having a gain control algorithm for calculating the gain needed by the programmable amplifier for helping to produce a live view image at a constant frame rate under low lighting conditions.

10 15. An electronic device for displaying a buffered image, according to claim 1, wherein said determination is made by a microprocessor having a stored look up table for determining the gain needed by the programmable amplifier for helping to produce a live view image at a constant frame rate under low lighting conditions.